

AMENDMENTS TO THE CLAIMS

1. (Original) A process for preparing 2-keto-L-gulonic C₄-C₁₀-alkyl esters by esterifying 2-keto-L-gulonic acid (KGA) with a saturated, branched or unbranched C₄-C₁₀-alcohol, which comprises, in a preliminary esterification, reacting an aqueous KGA solution with a C₄-C₁₀-alcohol under acid catalysis up to a degree of esterification of from 20% to 70% and dehydrating the product in a continuous rectification apparatus using a C₄-C₁₀-alcohol, as a result of which the esterification reaction advances.
2. (Currently amended) A process as claimed in claim 1, wherein the alcohol is a saturated, branched or unbranched alkyl alcohol having from 4 to 10 carbons, ~~preferably n-butanol~~.
3. (Currently amended) A process as claimed in claim 1 ~~or 2~~, wherein, in the preliminary esterification, the alcohol is used in a mass ratio to the KGA content in the aqueous solution of from 1:1 to 5:1.
4. (Currently amended) A process as claimed in ~~any of claims 1 to 3~~ claim 1, wherein the catalyst is an acid heterogeneous or homogeneous catalyst.
5. (Currently amended) A process as claimed in ~~any of claims 1 to 4~~ claim 1, wherein the catalyst is a mineral acid.
6. (Currently amended) A process as claimed in ~~any of claims 1 to 5~~ claim 1, wherein the preliminary esterification is carried out in a continuous-flow stirred tank.
7. (Currently amended) A process as claimed in ~~any of claims 1 to 5~~ claim 1, which is carried out under the following conditions:
 - a) mean residence time of the aqueous KGA in the preliminary esterification from 1 to 3 h,
 - b) reaction temperature in the preliminary esterification from 65°C to 120°C; and/or
 - c) mass ratio of KGA content to C₄-C₁₀-alcohol from 1:1 to 5:1; and/or
 - d) reaction temperatures during the entire process from 50°C to 120°C and/or
 - e) use of from 0.02 to 0.03 ~~mol~~ mole of sulfuric acid per mole of KGA as catalyst.

8. (Currently amended) A process as claimed in ~~any of claims 1 to 7~~ claim 1, wherein the aqueous KGA solution, before entry into the preliminary esterification reactor, is concentrated up to the solubility limit of KGA.
9. (Currently amended) A process as claimed in ~~any of claims 1 to 7~~ claim 1, wherein the aqueous KGA solution, before entry into the preliminary esterification reactor, is concentrated to above the solubility limit of KGA.
10. (Currently amended) A process as claimed in ~~any of claims 1 to 9~~ claim 1, wherein the continuous rectification apparatus ~~(2)~~ is equipped with an evaporator ~~(3)~~ and a condenser ~~(4)~~, and also preferably with a phase separation apparatus ~~(5)~~ and/or a vacuum system ~~(6)~~.
11. (Currently amended) A process as claimed in ~~any of claims 1 to 9~~ claim 1, wherein the preliminary esterification reactor ~~(1)~~ is equipped with an additional column ~~(7)~~, an additional evaporator ~~(8)~~ and an additional condenser ~~(9)~~ and also preferably with an additional phase separation apparatus ~~(10)~~.
12. (Currently amended) A process for preparing ascorbic acid, which comprises the process of claim 1 followed by converting as claimed in any of claims 1 to 11 and the 2-keto-L-gulonic C₄-C₁₀-alkyl ester prepared ~~being converted~~ to L-ascorbic acid in one or more steps.
13. (New) A process as claimed in claim 2, wherein the C₄-C₁₀-alcohol is n-butanol.
14. (New) A process as claimed in claim 10, wherein the continuous rectification apparatus is further equipped with a phase-separation apparatus and/or a vacuum system.
15. (New) A process as claimed in claim 11, wherein the preliminary esterification reactor is further equipped with an additional phase-separation apparatus.